

### Exhibit TC-5

# PROFESSIONAL BACKGROUND OF DAVID B. PATTON, PH.D.

#### **EDUCATION**

Ph.D., Economics, George Mason University
Areas of specialization: Industrial Organization, International Finance

M.A., Economics, George Mason University

B.A., Economics, New Mexico State University
Minor in Mathematics

#### **EMPLOYMENT**

President, Potomac Economics, 2001 – present

Provide expert testimony, analysis, and advice for clients on competitive issues in the electric and natural gas industries, including mergers, market power and antitrust issues, deregulation and competitive market design, and transmission pricing.

Currently serving as the Market Advisor for the New York ISO and ISO New England, responsible for assisting in monitoring the markets to identify and remedy market design flaws and market power concerns.

Director of Energy Practice, Capital Economics, 1997 – 2001

Provided expert advice and testimony to clients in cases involving transmission pricing, wholesale electric market design, mergers, market power and antitrust matters.

Assisted electric utilities to develop regional transmission organizations by providing expert advice regarding transmission pricing, congestion management, market development, and market monitoring.

Senior Economist, Office of Economic Policy, Federal Energy Regulatory Commission, 1995 – 1997

Developed transmission open access policies, including power pool, ISO, and comparability requirements in FERC's Open Access Rule (Order 888).

Developed the analytical framework in FERC's Merger Policy Statement for assessing the competitive effects of electric and natural gas utility mergers.



Responsible for analysis of transmission and ancillary service pricing issues associated with restructuring of the electric utility industry.

*Director of Buildings Policy*, Office of Energy Efficiency and Renewable Energy, U.S. Department of Energy, 1992 – 1995

Responsible for development of U.S. policy related to the energy efficiency of housing and commercial buildings. Managed data and analysis programs to estimate the effects of energy efficiency policies and programs.

*Staff Economist*, Office of Policy, Planning and Analysis, U.S. Department of Energy, 1989 – 1992

Responsible for development and assessment of energy policies in President Bush's National Energy Strategy and federal legislation, including the Energy Policy Act of 1992.

#### **TESTIMONY AND ANALYSES**

- New York Independent System Operator. Issued a report reviewing the performance of the New York electric markets during the Summer 2001, including recommended improvements to the operation and design of the markets.
- New York Independent System Operator. Issued an annual report for 2000 assessing the competitive performance of the New York wholesale electric markets and providing recommendations for modifying the market rules.
- Alliance Regional Transmission Organization. Submitted an affidavit and supplemental affidavit addressing transmission pricing and configuration issues related to a proposed regional transmission organization in the Midwest.
- Gas Pipeline Analysis. Provided a competitive analysis of a potential natural gas pipeline acquisition to the Federal Trade Commission.
- New York Independent System Operator. Submitted an affidavit analyzing modifications of the bidding rules for the New York electricity markets that would allow bidding by entities that do not control generating resources or serve load.
- New York Independent System Operator. Submitted an affidavit assessing the need for cost-based bidding restrictions or additional price screens as proposed by a market participant.
- Southern Indiana Gas & Electric / Indiana Energy Merger. Provided expert testimony regarding the competitive effects of the merger in the Midwestern natural gas and electric markets



- Northern States Power. Advised client on alternative transmission pricing and service proposals associated with the development of an independent transmission company.
- New York Independent System Operator. Developed a market monitoring program to identify and remedy market design and market power issues. Providing ongoing advice regarding the markets' operation and assistance in monitoring the market.
- American Electric Power / Central & Southwest Merger. Negotiated market power mitigation commitments with FERC staff on behalf of client.
- Midwest Natural Gas Market. Submitted a competitive analysis of Midwest pipeline and storage capacity to the U.S. Department of Justice regarding a civil antitrust investigation of a natural gas marketing joint venture.
- Western Resources / Kansas City Power & Light Merger. Submitted direct testimony and rebuttal testimony assessing the competitive effects of the merger. Also developed market power mitigation alternatives for the client to support settlement negotiations.
- Freddie Mac. Analyzed the issues related to liquidity and risk in the mortgage finance and asset-backed securities markets.
- New England Power Pool. Developed and negotiated a market power monitoring and mitigation plan with the NEPOOL, the State Commissions, and the New England Independent System Operator.
- California Power Exchange. Submitted an affidavit and rebuttal testimony analyzing competitive conditions to support a market-based pricing request, and analyzing the competitive and efficiency implications of proposed rate structure.
- Market Hub Partners. Submitted an affidavit analyzing the competitive effects of new high-deliverability salt cavern gas storage in the Pennsylvania natural gas market.
- Pennsylvania Power & Light / Penn Fuels merger. Provided expert testimony on the competitive effects of the electric and gas utility merger.
- Baltimore Gas & Electric / PEPCO merger. Provided expert direct and rebuttal testimony regarding the competitive effects of the merger.
- Alliant Merger (Wisconsin Power & Light / IES / Interstate Power). Testified as an expert on the competitive effects of the merger and negotiated mitigation measures with the applicants.
- FirstEnergy Merger (Ohio Edison Company / Centerior). Advised client on competitive issues related to the merger and on market power mitigation alternatives.



- Exxon and British Petroleum. Prepared economic analyses of wholesale gasoline prices in the California market.
- Northern States Power/Wisconsin Electric Power merger (Primergy). Advised FERC regarding competitive issues associated with the merger.
- Electricity and Transmission Pricing in Electric Utility Industry. Analyzed alternative auction and bilateral contracting regimes for FERC.
- Ameren Merger (Union Electric/ Central Illinois Public Service). Reviewed and advised FERC regarding competitive issues associated with the merger.
- PJM Power Pool. Analyzed the generation and transmission pricing aspects of restructuring proposal for FERC.
- Fannie Mae/U.S. Department of Energy. Developed partnership to use loan and mortgage products to improve the energy efficiency of U.S. housing.

#### SELECTED PUBLICATIONS AND PRESENTATIONS

- "Annual Assessment of the New York Electric Markets", presented to the Board of Directors and Management Committee, April 2001.
- "Monitoring Deregulated Electric Markets", FERC Market Monitoring Conference, November 2000.
- "Preliminary Assessment of the New York Electric Markets", presented to the New York ISO Board and Management Committee, October 2000.
- "Defining an Appropriate Role for Market Monitoring in a Deregulated Electric Industry", Association of Power Exchanges and International Electric Industry Conference, October 2000.
- "Defending Innovative Pricing Proposals for Regional Transmission Organizations", Edison Electric Institute Members' Workshop -- Developing Incentive Rates: Applications and Problems, July 2000.
- "Developing Efficient Incentives for A Transco", EEI Energy Daily Incentive Transmission Ratemaking Conference, July 2000.
- "Cost Shifting and Other RTO Pricing Issues", EEI Energy Daily Incentive Transmission Ratemaking Conference, July 2000.



- "Innovative Pricing Workshop: Developing and Defending Proposals for Regional Transmission Organizations", Infocast Transmission Pricing Conference, May 2000.
- "Addressing Market Power in Deregulated Electric Markets", presented at the 2000 Spring Meeting, Antitrust Law Section of the American Bar Association, April 2000.
- "Evaluating Investment Opportunities in Emerging Competitive Power Markets", presented at Lehman Brothers' Competitive Generation Conference, March 2000.
- "RTO Monitoring of Competitive Electric Markets", presented at the Annual Energy & Project Finance Conference, February 2000.
- "Monitoring Competitive Electric Markets", presented at 1999 Mid-Year Meeting of the Federal Energy Bar Association, November 1999.
- "Merger Review and Analysis", presented at Antitrust Issues in Competitive Electric and Natural Gas Markets sponsored by Howrey and Simon, September 1999.
- "The Role of Regional Transmission Organizations in Emerging Competitive Electric Markets", CCH Power and Telecom Law, July 1999.
- "Transmission Congestion in Competitive Electric Markets", presented at the Transmission Business Forum, July 1999
- "Designing Efficient Performance Based Rates", Incentive Ratemaking Workshop conducted at Independent Transmission Company conference hosted by Infocast, April 1999.
- "Designing an Independent Transmission Company to Promoting Competition and Efficiency", presented at Independent Transmission Company conference hosted by Infocast, April 1999.
- "Mitigating Market Power in a Deregulated Electric Utility Industry", CCH Power and Telecom Law, May 1998.
- "ISOs as a Safeguard Against Market Power Abuse", presented at Independent System Operator conference sponsored by Howrey & Simon, May 1998.
- "Competitive Analysis of Electric Utility Mergers: An Evolving Standard", CCH Power and Telecom Law, March 1998.
- "Congestion Pricing 101", In-house seminar for Howrey & Simon, November 1998.
- "Key Transmission Issues for an Independent System Operator", presented to Desert Star Independent System Operator participants, August 1997.



"FERC Perspective on Electricity Trading and Derivatives", presented at Electricity Trading and Derivatives Strategies Conference hosted by Infocast, March 1997.

"Market Power in Electricity: Analysis and Mitigation", presented to National Association of Regulatory Utility Commissioners Winter Meeting, February 1997.

## PROFESSIONAL ACTIVITIES AND AWARDS

American Economic Association

International Association of Energy Economists

National Association of Business Economists

U.S. Department of Energy, Commendation from Secretary of Energy, 1992

Phi Kappa Phi honorary society

Omicron Delta Epsilon, economics honorary society